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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,499	10/05/2005	Pierre Dufresne	PET-2164	7333
7590 04/07/2008 Millen White Zelano & Branigan Arlington Courthouse Plaza I 2200 Clarendon Boulevard Suite 1400 Arlington, VA 22201			EXAMINER HAILEY, PATRICIA L	
			ART UNIT 1793	PAPER NUMBER
			MAIL DATE 04/07/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/526,499	<b>Applicant(s)</b> DUFRESNE ET AL.	
	<b>Examiner</b> PATRICIA L. HAILEY	<b>Art Unit</b> 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 March 2005.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-20 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f):
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>03/04/05</u> . | 6) <input type="checkbox"/> Other: _____  |

**Priority**

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Applicants' Priority Document was filed on March 4, 2005.

**Claim Rejections - 35 USC § 112**

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. ***Claims 11-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.***

Claim 11 lacks antecedent basis for the limitation "second step"; claim 1, from which claim 11 depends, does not recite a "second step".

Claim 12 (and claims 13-15, which depend from claim 12) lacks antecedent basis for the phrase "organic compound"; claim 1, from which claims 12-15 depend, does not recite this phrase.

**Claim Rejections - 35 USC § 103**

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**7. Claims 1, 6-8, 11-16, and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dufresne et al. (U. S. Patent No. 5,922,638).**

Dufresne et al. teach a process for ex-situ sulfurization of a catalyst, wherein the catalyst is brought into contact with a presulfurizing agent that contains elemental sulfur and an organic liquid, examples of which include gas oils and fatty acid triglycerides.

See col. 2, line 52 to col. 3, line 39 (considered to read upon claims 11-15, 18, and 20).

After sulfurization, the catalyst may be subjected to ex-situ activation, followed by passivation treatment. This treatment can be carried out by passing an oxidized gas flow through the catalytic mass, or by impregnating the catalyst with a liquid that prevents the oxidation of sulfides at ambient temperatures (e.g., gas oils and lubricating bases such as a synthetic or mineral oil). See col. 5, line 62 to col. 6, line 13 of Dufresne et al. (considered to read upon **claims 6 and 7**), which also discloses that the catalyst is kept in motion during the activation stage, for example by carrying out activation in a rotary reactor tank (**claim 8**).

Example 1 of Dufresne et al. depicts an embodiment wherein a catalyst comprising CoO and MoO<sub>3</sub> is subjected to sulfurization (considered to read upon **claims 16 and 19**).

Although Dufresne et al. do not explicitly disclose an "ex situ oxidizing passivation" process, as instantly claimed, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Dufresne et al. by incorporating therein Patentees' passivation treatment, motivated by the teachings of Dufresne et al. that such a treatment can be performed on the presulfurized catalyst disclosed therein.

**8. Claims 3-7, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dufresne et al. (U. S. Patent No. 5,922,638) as applied to claims 1, 6-8, 11-16, and 18-20 above, and further in view of Dufresne (U. S. Patent No. 6,059,956, Applicants' submitted art).**

Dufresne et al. is relied upon for its teachings with respect to claims 1, 6-8, and 11-16. Dufresne et al. do not teach or suggest the limitations of claims 3, 9, and 10.

Dufresne teaches a pretreatment or activation process for a hydrocarbon hydroconversion catalyst, involving off-site incorporation into the catalyst of at least one sulphuration agent and/or at least one other suitable solvent (e.g., a triglyceride of unsaturated fatty acids such as vegetable oils). See col. 2, line 13 to col. 3, line 4 of Dufresne (considered to read upon the "first step" of claim 3).

The process also involves off-site treatment with pure or diluted hydrogen under conditions such as fixed, mobile, expanded, or fluidized bed to maximize homogeneity in the distribution of the sulphuration agent (considered to read upon claims 9 and 10), and also ex situ passivation, wherein a stream of oxygen and/or a stream of air are passed over the catalyst (considered to read upon the "second step" of claim 3). Contact of the catalyst with oxygen may be made in two stages or several stages (considered to read upon claims 4-7; the partial pressures recited therein are considered to be process optimization parameters). See col. 3, lines 5-61 of Dufresne.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the process of Dufresne et al. by incorporating therein the process of Dufresne, because the ex situ passivation disclosed by Dufresne eliminates the pyrophoric tendency of the catalyst's sulphide phases, and also positively affects the catalyst's activity. See col. 4, lines 40-44 of Dufresne.

***Allowable Subject Matter***

9. Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record does not teach or suggest the limitations of claim 2.

***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PATRICIA L. HAILEY whose telephone number is (571)272-1369. The examiner can normally be reached on Mondays-Fridays, from 7:00 a.m. to 3:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo, can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 1700 Receptionist, whose telephone number is (571) 272-1700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/PATRICIA L. HAILEY/  
Examiner, Art Unit 1793  
February 15, 2008

/Jerry A Lorengo/  
Supervisory Patent Examiner, Art Unit 1793